

CLAIMS

What is claimed is:

1. A method for servicing streaming media comprising:  
receiving said streaming media;  
determining an allocation of available processing and memory resources;  
performing a multi-stage service on said streaming media; and  
caching an intermediate result from one of the stages of said multi-stage process, said result selected according to said available processing and memory resources.
2. The method of Claim 1, wherein said service is a computing-intensive media services.
3. The method of Claim 2, wherein said resources are selected from the group consisting of a transcoder, a first cache, and a second cache.
4. The method of Claim 1, wherein said service comprises transcoding functions.
5. The method of Claim 1, wherein said result is a final transcoding result.
6. The method of Claim 4, wherein said transcoding functions are

selected from the group consisting of frame rate reduction, bit rate reduction and resolution reduction.

7. The method of Claim 1, wherein said caching comprises caching intermediate transcoding results of an output stream of said streaming media provided a target bit rate of said output stream of said streaming media is greater than a data caching rate of said streaming media.

8. The method of Claim 7, wherein said intermediate transcoding results comprise meta data that is selected from the group consisting of pixel, block, macroblock, picture and sequence.

9. The method of Claim 4, wherein said transcoding functions are performed by resources selected from the group that consist of motion vector generator, bit rate controller and parser.

10. A computer useable medium having computer useable code embodied therein causing a computer to perform operations comprising:

receiving said streaming media;

determining an allocation of available processing and memory resources;

performing a multi-stage service on said streaming media; and

caching an intermediate result from one of the stages of said multi-stage process, said result selected according to said available

processing and memory resources.

11. The medium of Claim 10, wherein said service is a computing intensive service.

12. The medium of Claim 11, wherein said resources are selected from the group consisting of a transcoder, a first cache, and a second cache.

13. The medium of Claim 10, wherein said service comprises transcoding functions.

14. The medium of Claim 10, wherein said result is a final transcoding result.

15. The medium of Claim 13, wherein said transcoding functions are selected from the group consisting of frame rate reduction, bit rate reduction and resolution reduction.

16. The medium of Claim 10, wherein said caching comprises caching intermediate transcoding results of an output stream of said streaming media provided a target bit rate of said output stream of said streaming media is greater than a data caching rate of said streaming media.

17. The medium of Claim 16, wherein said intermediate

transcoding results comprise meta data that is selected from the group consisting of pixel, block, macroblock, picture and sequence.

18. The medium of Claim 13, wherein said transcoding functions are performed by resources selected from the group that consist of motion vector generator, bit rate controller and parser.

19. A device for servicing streaming data comprising:

a processor for determining available processing and memory resources; and

memory for caching an intermediate transcoding result from a stage of a multi-stage data service, said intermediate transcoding result selected according to said available processing and memory resources.

20. The device of Claim 19, wherein said service is a computing intensive service.

21. The device of Claim 20, wherein said resources are selected from the group consisting of a transcoder, a first cache, and a second cache.

22. The device of Claim 19, wherein said intermediate transcoding result is selected from any of the respective stages of said multistage service.

23. The device of Claim 19, wherein said result is selected to optimize the balance of processing and memory resources used in providing said service.
24. The device of Claim 19, wherein said device performs transcoding functions that are selected from the group consisting of frame rate reduction, bit rate reduction and resolution reduction.
25. The device of Claim 19, wherein said caching comprises caching intermediate transcoding results of an output stream of said streaming media provided a target bit rate of said output stream of said streaming media is greater than a data caching rate of said streaming media.
26. The device of Claim 25, wherein said intermediate transcoding results comprise meta data that is selected from the group consisting of pixel, block, macroblock, picture and sequence.
27. The device of Claim 24, wherein said transcoding functions are performed by resources selected from the group that consist of motion vector generator, bit rate controller and parser.